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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,952	09/29/2000	Poul Bach	5974.200-US	1106

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EXAMINER	
PATTEN, PATRICIA A	
ART UNIT	PAPER NUMBER
1654	

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/675,952

Applicant(s)

Bach, P.

Examiner

Patricia Patten

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Oct 8, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11, 26, 34, and 35 is/are pending in the application.
- 4a) Of the above, claim(s) 11, 34, and 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4&5 6) ☐ Other:

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### **DETAILED ACTION**

The Examiner of record has changed in the Instant case. Please note the Examiner's name and contact information at the close of this Office Action.

#### ***Election/Restriction***

Applicant's election of Group I, claims 1-10 and 26 in Paper No. 13 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1-10 and 26 are pending in the application and were presented for examination on the merits.

#### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Denmark on 10/01/1999 and 02/17/2000. Although a paper is present in the Application that appears that Applicant has intended to furnish these

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documents as required by 35 U.S.C. 119(b), It is noted that the documents are not in the application.

***Information Disclosure Statement***

It appears that the previous Examiner sent a copy of the 1449 form which corresponded with the IDS received on 5/18/01 (Paper No. 6). However, the original 1449 form for this particular IDS is not found in the file. While the references submitted have been considered by the new Examiner in this case, Applicant is asked to furnish a new 1449. The Examiner will sign and date this 1449 and send a copy in the next correspondence.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Regarding claim 8, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Claim 8 was examined as if the phrase 'such as' read 'selected from the group consisting of'.

Claim 4 recites 'wherein the size of the core unit in *terms of its relative mass* compared to the overall mass of the granule is up to about 30%' (emphasis added) is confusing. The terms 'size' and mass are not mutually exclusive and size is not dependant upon mass. For example, an object of appreciable mass may be relatively small, while an object which is considered large may have a small mass. Thus, size cannot be given *in terms of mass*, only in terms of dimentions.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-6 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamel et al. (US 5,230,822). Claims 1-6 and 9-10 are drawn to an enzyme-containing granule comprising a core unit and a shell unit wherein the shell unit is substantially enzyme-free, and wherein the enzyme is present in the core at about 20-100% by weight of the core, wherein the ratio between the diameter of the granule and the diameter of the core unit is at least 1.1 and at least 2.5, wherein the size of the core unit is about 30% by weight of the granule, wherein the enzyme is homogeneously dispersed in the core, and wherein there is present a film layer separating the core from the shell unit.

Kamal et al. (US 5,230,822) disclosed a method for encapsulating enzyme-containing granules in wax (Abstract). Specifically, claim 1 states a wax encapsulated core material particle which comprised 10-80% by weight of a core material in the form of a core particle or an aggregate of core particles and 20-90% by weight of a wax coating, and claim 7 specifically limits the particle to an enzyme selected from a protease, a lipase an amylase and an oxidase. Thus, Kamal et al. proposed the incorporation of enzymes in the core unit anywhere from 10-80% *by weight of the core material*.

Kamal et al. taught that the core-containing enzyme could be obtained from a manufacturer, or could have been agglomerated via addition of an agglomerating agent

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and employment of wet granulation (col.10, lines 26-44). Kamal et al. taught that the core particles 'should range from about 100 microns to about 2,500 microns...' (col.4, lines 5-6). Atomization of the melted wax onto the fluidized bed of enzyme cores created the encapsulated cleaning granules as indicated in Example IX wherein SAVINASE was coated with paraffin wax (col.28 and Example 1). Kamal et al. taught that the wax coating preferably had a thickness of 100 to 1,500 microns (col.3, lines 50-52).

Kamal et al. taught that the agglomeration process could have been performed via granulation and coating with an agglomerating agent, thereby creating a 'film' of agglomerating agent on the core material (col.11, lines 1- 6) as well as producing 'homogeneous' granules (as in claim 6). Please note that the term 'film' in claim 9 is interpreted broadly, and is deemed to be any thin coating. Because Kamel et al. suggested that the granules were sprayed with the agglomeration fluid while being granulated, it is deemed that the coating would have been a 'thin' coating, thereby within the metes and bounds of the term 'film'. Further, because the core was sprayed with this coating prior to encapsulation, this 'film' would have separated the core from the shell and offered some 'protection'.

Although Kamal et al. did not explicitly disclose an embodiment which displayed a granule which had a ratio of granule diameter/core diameter of at least 1.1 or at least 2.5, Kamal et al. did suggest preferred diameters of the core material as well as

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thicknesses of the wax coating which would have amounted to a ratio of granule diameter/core diameter to be 1.1 or greater or 2.5 or greater. For example, if the core diameter was chosen to be 400 microns, and the coating was chosen to be 250 microns, the ratio of granule diameter/core diameter would equal 2.25. Additionally, if the coating was chosen to be 300 microns, and the core diameter was chosen to be 400 microns, the ratio would equal 2.5 and so-forth. Because Kamal et al. disclosed these preferable ranges, the ordinary artisan would have had a reasonable expectation that the combination of core diameters and wax thicknesses to provide for a granule which possessed a granule:core ratio of greater than 1.1 or greater than 2.5 would have provided for a beneficial addition to detergents as proposed by Kamal et al. (col.15, lines 14-45).

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kame et al. (US 5,230,822) as applied to claims 1-6 and 9-10 above, and further in view of Paatz et al. (US 5,846,798). Claims 7 and 8 are drawn to wherein the enzyme containing granule comprises more than one type of enzyme, and wherein the granule comprises a multi-layered core unit or a clustered-particle unit.

The teachings of Kame et al. (US 5,230,822) were discussed *supra*.



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Kame et al. did not specifically discuss wherein the enzyme containing granule comprised more than one type of enzyme or wherein the granule comprises a multi-layered core unit or a clustered-particle unit.

Paatz et al. (US 5,846,798) disclosed enzyme granules which contained at least two different enzymes in the core (Abstract). Specifically, Paatz et al. described a protocol which created an 'extrudate core' comprising one type of enzyme (Example 1, col.9) and agglomeration of this extrudate core onto lipase granules via a fluidized bed spray granulator (col.10, lines 33-66). Thus, these granules contained more than one enzyme, and also were 'clustered-particle units' as they fit the description set forth in the Instant specification (p.13, lines 21-25).

One of ordinary skill in the art would have been motivated to have agglomerated more than one type of enzyme in the agglomeration process disclosed by Kame et al. in order to have beneficially provided a cleaning composition with an additive enzymatic degradation effect.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of

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ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Patricia Patten, whose telephone number is (703)308-1189. The examiner can normally be reached on M-F from 9am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Brenda Brumback is on 703-306-3220. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

A handwritten signature in black ink, appearing to read "Patricia Patten", with a long horizontal line extending from the end of the signature.